

Maple Leaf International School

Subject: Chemistry

Class: VI

2nd Monthly: Handout - 5

Chapter: 16d – Group 0: The Noble Gases

Group 0- Noble Gases:

- He – helium
- Ne – neon
- Ar – argon
- Kr – krypton
- Xe – xenon
- Rn – radon

Group 0 (or 8):

- Group 0 are the very unreactive *noble gases*.
- The noble gases exist as single atoms, so they are called *monatomic gases*.
- Their atoms have full outer shell of electrons, so they are stable and does not react with any other elements.
- As they are unreactive, they are said to be *inert*.
- Their lack of reactivity makes them useful in many ways.

Properties of noble gases:

- Their boiling point increases going down the group.
- Their density increases going down the group

Uses of noble gases:

- Helium- It is used to fill airships and balloons as it is less dense than air.
- Neon- It is used to make light bulbs, high-voltage indicators, diving equipment and lasers.
- Argon- It is used in light bulbs, welding and manufacturing titanium.
- Krypton- It is used as a filling gas for energy-saving fluorescent lights and in lasers for eye surgery.
- Xenon- It is used for photographic flash lamps, various lasers, moderate nuclear reactions, and motion picture projectors.
- Radon- It is a radioactive noble gas. So, it is often used in the treatment of cell damage and cancer.

Note: The gases are also used inside electric discharge tubes where they glow brightly. For example: neon glows red, argon glows violet.

Questions discussed and solved in class:

Page: 196-197 – Q: a, b, c, d

Page: 197 – Q: 1, 2

Page: 199 – Q: 1, 3 (b, c, d), 5 (a, c, e, g, h, l, j).

THE END!!